

**Notice of Allowability**

Application No.

10/089,569

Examiner

Tuan N Nguyen

Applicant(s)

JACQUET, JOEL

Art Unit

2828

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/23/2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 04/02/2002; 03/04/2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☒ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 10/8/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below, to the amended claims 1, 4, 15, should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. Claims 19-22 have been canceled. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John Carey (Attorney for Applicant, Reg. No. 51,530) on 10/08/2004.

In the claims 1, 4, 15:

1. (Currently Amended) A tunable edge-emitting semiconductor laser, comprising:
  - a base;
  - a laser diode coupled to the base;
  - a fixed reflector coupled to the base; and
  - an adjustable reflector coupled to the base such that the laser diode is disposed between the fixed reflector and the adjustable reflector, the adjustable reflector positioned with respect to the fixed reflector to delimit a resonant cavity having an active section with a gain length  $L_1$  and a tunable section of length  $L_2$ ,wherein a total length of the active section and the tunable section is less than or equal to 20  $\mu\text{m}$ , and  
wherein a tuning range of the laser is continuous.
4. (Currently Amended) The tunable laser according to claim 3, wherein the tuning range ~~is continuous and~~ is greater than or equal to 30 nm.
15. (Currently Amended) The tunable laser according to claim 12, wherein the adjustable reflector comprises dielectric deposited on silicon.

## **REASON FOR ALLOWANCE**

### ***Allowable Subject Matter***

2. The following is an examiner's statement of reasons for allowance - with respect to claims 1 the references of the record fail to teach or suggest:

A tunable edge-emitting semiconductor having a fixed reflector, a laser diode is disposed between the fixed reflector and the adjustable reflector, wherein the total length of the active section and tunable section is continuous tuning less than or equal 20um.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Communication Information***

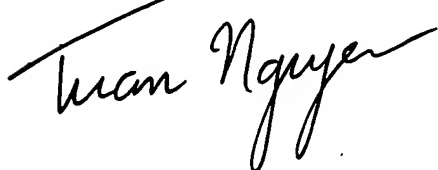
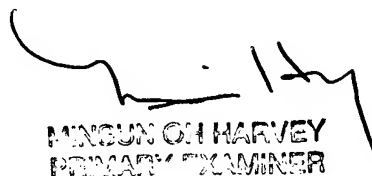
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (703) 308-16741. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan Nguyen", written in a cursive style.A handwritten signature in black ink, appearing to read "Minsun Oh", written in a cursive style.  
MINSUN OH HARVEY  
PATENT EXAMINER